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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/893,829	06/28/2001	Raja Krishnaswamy	MS174293.1	5228
27195	7590	03/13/2006	EXAMINER	
AMIN & TUROCY, LLP 24TH FLOOR, NATIONAL CITY CENTER 1900 EAST NINTH STREET CLEVELAND, OH 44114			EL HADY, NABIL M	
			ART UNIT	PAPER NUMBER
			2152	

DATE MAILED: 03/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/893,829

Applicant(s)

KRISHNASWAMY ET AL.

Examiner

Nabil M. El-Hady

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**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 14 December 2005.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-24,26 and 27 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-24,26 and 27 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

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1. Claims 1-24, 26, and 27 are pending in this application

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. Claim 14 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. A computer readable medium as disclosed in the specification, page 28, lines 20-32, comprises a computer storage media and communication media (spec. page 28, lines 20-21). The communication media, embodies computer readable instructions, data structures, program modules or other data in a modulated data signal such as carrier wave or other transport mechanism and include any information delivery media (spec., page 28, lines 28-30. Carrier wave as a communication media, and part of the computer readable medium discloses, represents a non-statutory subject matter.

4. Claim 23 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. A computer readable medium as disclosed in the specification, page 28, lines 20-32, comprises a computer storage media and communication media (spec. page 28, lines 20-21). The communication media, embodies computer readable instructions, data structures, program modules or other data in a modulated data signal such as carrier wave or other transport mechanism and include any information delivery media (spec., page 28, lines 28-30. Carrier wave as a communication media, and part of the computer readable medium discloses, represents a non-statutory subject matter.

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5. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

6. Claims 1-24, 26, and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cohen et al. (6,324,543), hereinafter "Cohen" in view of Cheng et al. (US 6,182,155), hereinafter "Cheng".

7. Cohen is cited by the examiner in a previous office action:

8. As per claim 1, Cohen discusses a system for interacting with an object (col. 2, lines 32), the system comprising: a method call interceptor (col. 2, lines 1-5; col. 3, lines 57-63, proxy B'), operable to intercept a method call to an object and to route the method call to a proxy (col. 2, lines 1-5; col. 3, lines 57-63, proxy B"), the method call interceptor accessible to application code (e.g. col. 2, lines 1-10); and an application code generic proxy operable to receive an intercepted method call (col. 2, lines 1-5; col. 3, lines 57-63, proxy B"), the application code generic proxy further operable to invoke a method on the object (method foo() of col. 3, lines 34-62; and col. 7, lines 7-9), to receive results from the object and to pass results to the entity that generated the intercepted method call (col. 3, line 61; and e.g. col. 7, lines 1-12 ). Cohen also reads on claim 1 by interpreting the "local proxy" as the "method call interceptor", the "remote proxy" as the "application code generic proxy". The remote proxy invokes the method of the request of object and returns the result to the entity that generated the request (through the "local proxy").

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9. Cohen does not specifically disclose modifying the method call operability of the application code generic proxy. Cheng, on the other hand, discloses modifying the method call operability of the application code generic proxy (col. 3, lines 21-32, and col. 5, lines 10-16). It would have been obvious to one skilled in the art at the time of the invention to combine the teachings of Cohen and Cheng in order to expand on the functionality of conventional object method call and the use of proxies as disclosed by Cohen using the inherent properties of an object oriented environment.

10. As per claim 14, the claim is rejected for the same reasons as claim 1 above.

11. As per claim 15, the claim is rejected for the same reasons as claim 1 above.

12. As per claim 23, the claim is rejected for the same reasons as claim 1 above.

13. As per claim 27, the claim is rejected for the same reasons as claim 1 above.

14. As per claim 24, the claim is rejected for the same reasons as claim 1 above. In addition, it is obvious from Cohen and Cheng disclosures that data packets would be transmitted between computer processes comprising identifier/value pair providing information associated with an intercepted method call on an object (e.g. Cohen, col. 7, lines 1-17, and Cheng, col. 4, lines 28-57).

15. As per claims 2 and 20, Cohen discloses the object is located across a remoting boundary (e.g. col. 2, lines 1-10).

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16. As per claims 3 and 21, Cohen discloses the object is marshaled by reference (e.g. col. 5, lines 61-67).

17. As per claims 4 and 22, Cohn discloses the object is marshaled by value (e.g. col. 1, lines 24-32; in the preferred embodiment Cohen uses Java to create and instantiate the objects, it is an inherent property of Java to marshal objects by value).

18. As per claim 5, Cohen discloses the method call interceptor is operable to populate a call information data store with information associated with the intercepted method call, the call information data store accessible to the application code generic proxy (e.g. col. 6, lines 62-67).

19. As per claim 6, Cohen discloses populating the call information data store with at least one of a method name, one or more input parameters, a count of the number of input parameters, one or more type identifiers associated with the input parameters, a count of the number of return parameters for the method call, one or more type identifiers associated with the return parameters, class/interface defining method data, a stack pointer and a heap pointer (e.g. col. 7, lines 1-17).

20. As per claims 7 and 26, Cohen discloses the call information data store is a message object that can be serialized and passed across a remoting boundary (e.g. col. 7, lines 40-60).

21. As per claim 8, Cohen discloses the method call interceptor is operable to transfer control to a method in the application code generic proxy, where the method in the application

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code generic proxy overrides a base class method defined in a base class object from which the application code generic proxy inherits (e.g. col. 9, lines 1-20).

22. As per claims 9 and 16, Cohen discloses the application code generic proxy is operable to perform proxy pre-processing before invoking the method on the object (e.g. col. 6, lines 57-67).

23. As per claims 10 and 17, Cohen discloses the proxy pre-processing comprises at least one of load-balancing, transaction processing, object migration, object persisting, monitoring remote method calls, caching remote data, controlling remote method call invocations and machine learning involved in optimizing remote method call invocation (e.g. col. 5, lines 61-67).

24. As per claims 11 and 18, Cohen discloses the application code generic proxy is operable to perform proxy post-processing after receiving the results from the object (e.g. col. 7, lines 8-16).

25. As per claims 12 and 19, Cohen discloses the proxy-processing comprises at least one of auditing, transaction processing, object migration, object persisting, monitoring remote method calls, caching local data, caching remote data, controlling remote method call invocations and machine learning involved in optimizing remote method call invocation (e.g. col. 7, lines 8-12).

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26. As per claim 13, Cohen discloses the application code generic proxy invokes the method on the object by invoking a method available in a remoting infrastructure (e.g. col. 8, lines 18-23).

27. Claims 1, 14, 15, 23, 24, and 27 are further rejected under 35 U.S.C. 103(a) as being unpatentable over Moore et al. (US 6,282,581), hereinafter "Moore" in view of Cheng.

28. As per claim 1, Moore discusses a system for interacting with an object (abstract; and Fig. 5), the system comprising: a method call interceptor (communication framework 257, Fig. 3), operable to intercept a method call to an object and to route the method call to a proxy (col. 7, lines 58-67), the method call interceptor accessible to application code (col. 7, lines 58-67); and an application code generic proxy operable to receive an intercepted method call (col. 8, lines 8-120; and Fig. 3), the application code generic proxy further operable to invoke a method on the object ( col. 8, lines 31-36), to receive results from the object and to pass results to the entity that generated the intercepted method call ( Fig. 4 and Fig. 5).

29. Moore does not specifically disclose modifying the method call operability of the application code generic proxy. Cheng, on the other hand, discloses modifying the method call operability of the application code generic proxy (col. 3, lines 21-32, and col. 5, lines 10-16). It would have been obvious to one skilled in the art at the time of the invention to combine the teachings of Moore and Cheng in order to expand on the functionality of conventional object method call and the use of proxies as disclosed by Moore using the inherent properties of an object oriented environment.



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30. As per claim 14, the claim is rejected for the same reasons as claim 1 above.

31. As per claim 15, the claim is rejected for the same reasons as claim 1 above.

32. As per claim 23, the claim is rejected for the same reasons as claim 1 above.

33. As per claim 27, the claim is rejected for the same reasons as claim 1 above.

34. As per claim 24, the claim is rejected for the same reasons as claim 1 above. In addition, Moore discloses that data packets transmitted between computer processes comprise identifier/value pair providing information associated with an intercepted method call on an object. The call information data store with at least one of a method name, one or more input parameters, a count of the number of input parameters, one or more type identifiers associated with the input parameters, a count of the number of return parameters for the method call, one or more type identifiers associated with the return parameters, class/interface defining method data, a stack pointer and a heap pointer (Arglist class 261 and Arglist 701 of Fig. 7).

35. Applicant's arguments filed 12/14/2005 have been fully considered but they are not persuasive. Therefore rejection of claims 1-24, 26, and 17 is maintained.

36. In the remarks, applicants argued in substance that (1), Nowhere in the language of the claim (claim 14 and claim 23) is there mention of a carrier wave, but rather the claim clearly enunciates a computer readable medium, examiner misread the relevant passage in the specification and is reading limitations from the specification, (2), Cohen is silent with regard to

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the disclosure and utilization of identifier/value pairs, (3), Moore does not disclose or suggest identifier/value pair.

37. Examiner respectfully traverses applicants' remarks.

38. As to point (1), examiner neither read limitations from the specification, nor misread the relevant passage in the specification. An ordinary skilled in the art reading the claim for a computer readable medium would perceive that the claim is directed toward a computer readable medium. A computer readable medium as disclosed in the specification, page 28, lines 20-32, comprises a computer storage media and communication media (spec. page 28, lines 20-21). The computer storage media includes ....., and the communication media, embodies computer readable instructions, data structures, program modules or other data in a modulated data signal such as carrier wave or other transport mechanism and include any information delivery media (spec., page 28, lines 28-30). Carrier wave as a communication media, and part of the computer readable medium discloses, represents a non-statutory subject matter.

39. As to point (2), Cohen may be silent with regard to the disclosure and utilization of identifier/value pairs, however, it would be obvious from Cohen disclosure that data packets would be transmitted between computer processes comprising identifier/value pair providing information associated with an intercepted method call on an object (e.g. Cohen, col. 7, lines 1-17). In addition, the data packet disclosed in claim 24 is merely a non-functional data structure may be equivalent to any data structure in Cohen disclosure.

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40. As to point (3), Moore discloses identifier/value pair. The ArgList 701 is an object that derives from the ArgList class 261. Input and output arguments are marshaled into the communication channel. The stub object 303 creates a derived instance of the Arg class for each argument, which may be in identifier/value form. In addition, the data packet disclosed in claim 24 is merely a non-functional data structure may be equivalent to any data structure in Moore disclosure.

41. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.


42. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nabil M. El-Hady whose telephone number is (571) 272-3963. The examiner can normally be reached on 9:00 - 4:00.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bunjob Jaroenchonwanit can be reached on (571) 272-3913. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

March 6, 2006



Nabil El-Hady, Ph.D, M.B.A.  
Primary Examiner  
Art Unit 2152